

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	108-08
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 173 amino acids.
<b>Quantity:</b>	10µg/50µg/1000µg
<b>AA Sequence:</b>	ETFPKYLHY DEETSHQLLC DKCPPGTYLK QHCTAKWKTVCAPCPDHYT DSWHTSDECL YCSPVCKELQ YVKQECNRTH NRVCECKEGR YLEIEFCLKH RSCPPGFGVV QAGTPERNV CKRCPDGFFS NETSSKAPCR KHTNCSVFGL LLTQKGNATH DNICSGNSES TQK
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by neutralizing the stimulation of U937 cells is less than 10 ng/ml, corresponding to a specific activity of > 1.0 × 10 <sup>5</sup> IU/mg in the presence of 10 ng/mL soluble rHuRANKL (sRANKL).
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, 150 mM NaCl, pH 6.0.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuOPG as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

***Human Osteoprotegerin***

Osteoprotegerin (OPG), also named osteoclastogenesis inhibitory factor (OCIF), and tumor necrosis factor receptor superfamily member 11B (TNFRSF11B), is a TNFRSF11B-encoded protein in humans. OPG is a 401 a.a. basic glycoprotein which comprises 7 structural domains. It is either a 60 kDa monomer or a 120 kDa dimer linked by disulfide bridges. OPG acts as a decoy receptor for the receptor activator of nuclear factor kappa B ligand (RANKL) and inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro and may also play a role in preventing arterial calcification. OPG has been applied to decrease bone resorption in women with postmenopausal osteoporosis and in patients with lytic bone metastases. Mature human OPG shares 86 %, 87 %, 92 %, 92 % and 88 % amino acid sequence identity with mouse, rat, equine, canine and bovine OPG, respectively.

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